Preventive Psychiatry in the Board of Education

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The Board of Education has a significant role in the psychiatric prevention of criminal and psychiatric disorders. Two hundred and seventy-four children were seen over a two year period and their diagnostic groupings are presented. Follow-up was possible on 150 of the children and it was found that 70 percent of them were better. The findings and conclusions from this sample are presented.

Introduction

Questions are constantly being raised about what needs to be done about the high incidence of rape, murder, crime, drug abuse, alcoholism, child abuse, child molestation, mental illness, and suicide. It seems clear that in order to decrease these forms of social maladjustment, the children who will become rapists, murderers, criminals, drug abusers, child molesters, psychiatric patients, and suicide victims need to be raised differently *now*, rather than waiting until their psychopathological patterns are solidly formed to begin corrective measures. In addition, it is easier to treat the explosive child, before he has grown several feet, put on 100 lb, and is legally responsible for himself.

The Board of Education is the political administrative group responsible for providing the public school environment, which is the primary social (other than family) contact for children. As a result, the school can provide programs which counteract "the stressful or potentially harmful social conditions that produce mental illness by promptly intervening when such conditions exist."[1] Children are present in school during the day, five days a week with other children and adults; this social milieu provides for direct observation of interpersonal relatedness of children.[2] Thus one has available a perfect milieu to observe and identify children with problems that, given time, could develop into full-blown criminal or psychiatric disorders. As a result, school is a tremendous aid in early identification and treatment (secondary prevention).[1] Finally, the Board of Education has a role in providing tertiary prevention[1] because, after treatment has occurred, the Board must aid in the rehabilitation of the patient by placing him in the regular school milieu. This paper primarily focuses on the secondary prevention of the Board of Education (which it is obligated to provide due to Public Law 94-142 concerning the education of handicapped children).

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Procedures

In an attempt to take advantage of the secondary prevention potential of the public school social milieu, the Chicago Board of Education set up a network of Pupil Service Centers (PSC) that were to identify children with learning and behavior problems and provide referral for correction of the problem or the problem's etiology. Children with difficulties were identified on the local school level and referred to the adjustment teacher who tried to deal with the problem on a local level with the help of local school personnel. If the problem was over the adjustment teacher's head, the student was referred (via the principal) to the PSC which served the school's district. Once at the PSC, the referral was examined along with other pertinent accompanying information, and the child and parents were screened to identify problems and services needed. On the basis of this initial intake, the children and parents were scheduled to see various members of the team which included a psychiatrist, pediatrician, public health nurse, vision tester, dentist, hearing tester, laboratory technician, social worker, psychologist, school nurse, adjustment teacher, special education teachers, speech pathologist, and educational diagnosticians specializing in learning disabilities, social maladjustment, behavioral disorders, and mental retardation. In addition, transient classroom settings were provided for the children to obtain first hand observation of classroom behavior. Finally, all of the information was gathered and a staffing was held (with parents present) to discuss findings and recommendations. These recommendations were then turned over either to the local school, the appropriate central office bureau, or the area's Board of Education task force for implementation.

Psychiatric evaluations were requested if the child had clear indications of being seriously emotionally disturbed or if, after a complete evaluation by the other team members, no reason could be found for the child's inability to learn. Parents and children were seen for an hour. If a clear diagnostic picture could not be obtained in this brief session, then the family was scheduled for another hour. First, the parents were asked about their understanding of the difficulties their child was having in school. Next, they were asked about any problems at home. The referral and school record were reviewed with the parents and child present so that the parents could either be informed or further questioned about the child's behavior, and so the child could be aware of what was documented. Usually, there was information from the social worker (about the home environment and family relationships), psychologist (about IQ, perceptual-motor difficulties, reading and math scores, behavioral observations, and occasionally projective tests), school nurse (about medical history, and visual and auditory competence), and other appropriate team members. Occasionally, there was information concerning previous diagnostic evaluations or treatment.

The parents were then excused and the child was asked to tell his side of the story concerning his difficulties at school or at home. The child was questioned about his feelings of anger, sadness, excitement, happiness, apathy, and fearfulness. Depending on the child's affect and history, he was approached with an affect that was best

Table 1. Diagnostic Categories of Children in the Study With Consideration of Sex as a Variable

Diagnostic Categories	No. of Females	% Total Females	No. of Males	% Total Males	Total No. Males and Females	% Total
Organic Brain Syndrome (OBS)/Trainable Mentally Handicapped (TMH) with explosive behavior	5	9.3	17	7.7	22	8.0
Educable Mentally Handicapped (EMH) with explosive behavior	5	9.3	17	7.7	22	8.0
EMH with neurotic symptoms	2	3.7	9	4.1	11	4.0
Psychotic (autistic, childhood schizophrenia, adolescent schizophrenia, other)	3	5.6	23	10.5	26	9.5
Borderline syndrome	3	5.6	15	6.8	18	6.6
Socially maladjusted behavior (personality disorder)	1	1.8	—	—	1	0.4
Minimal Brain Dysfunction (MBD)/Learning Disability (LD) with explosive and/or neurotic symptoms	14	25.9	55	25	69	25.2
Explosive behavior	4	7.4	23	10.5	27	9.9
Neurotic (anger/depression) symptoms	17	31.5	60	27.3	77	28.1
Psychophysiologic disorders	—	—	1	0.5	1	0.4
Total	54	100	220	100	274	100

suited to enlist his cooperation (eg, fearful children were approached in a warm, friendly manner; angry children were approached in a realistic, firm but fair manner, etc). Children were told exactly what was going on from the examiner's viewpoint, and what the child's options were. In all cases, there was an attempt to get a treatment contract (verbalization of the problems and willingness to get help for it) from the child. Finally, the ability of the child to relate interpersonally with the examiner was considered a major factor in the evaluation because it was felt that children who could relate could be better influenced by therapists and teachers than those who could not. Children who did not choose to cooperate with the interviewer (usually due to anger and sulleness) were immediately returned to their parents who were usually able to convince the child to cooperate.

Finally, the parents and child were seen together and told of the findings and recommendations providing an opportunity for input or additional information. Usually, a clear picture was presented to the parents, which encouraged them to have a bit more confidence in the examiner; oftentimes at this point of the interview, they shared information that was confirmatory of the examiner's impressions. The family was asked for treatment contract, consisting of their recognition of the problem and their cooperation in following through on the treatment recommendations. The report was typed and one copy sent to the area's Board of Education task force (if an out of Board of Education therapeutic school milieu, hospitalization, or special school placement was needed) or to the appropriate bureau (TMH, EMH, LD) or the local school for implementation. If no treatment contract was given, the family was told that the Board would in all probability handle the child's problem in an administrative fashion (suspension for acute acting up, social maladjustment school for chronic acting up, truancy investigation for nonattendance, etc), rather than in a therapeutic approach.

Children were categorized as seriously emotionally disturbed according to the guidelines in Public Law 94-142 which is as follows:

(i) The term means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree which adversely affects educational performance:

(A) An inability to learn which cannot be explained by intellectual, sensory, or health factors;

(B) An inability to build or maintain satisfactory interpersonal relationships with peers or teachers;

(C) Inappropriate types of behavior or feelings under normal circumstances;

(D) A general pervasive mood of unhappiness or depression; or

(E) A tendency to develop physical symptoms or fears associated with personal or social problems.

(ii) The term includes children who are schizophrenic or autistic. The term does not include children who are socially maladjusted, unless it is determined that they are seriously emotionally disturbed.[3]

Results of Psychiatric Examinations

The patients' psychiatric examinations were reviewed over a two year period, and it was found that 274 children fell into ten tentative categories of emotional illness (Table 1). There were 54 females and 220 males (19.7 and 80.3 percent of the total population respectively). The average age of both males and females was about 11.5 years.

The first category of patients was those who had a clear history of organic brain syndrome (OBS) and who according to psychological tests) were trainable mentally handicapped (TMH). These children were seen primarily because of poor frustration tolerance which led to poor impulse or affect control which often ended in violent or hostile behavior. Inasmuch as not all children who are OBS/TMH are explosive, these children were also classed as seriously emotionally disturbed. Disturbances in memory, judgment, intellect, orientation, and stability of affect were apparent in this group. In addition, they showed marked global visual, auditory, and tactile agnosias; expressive - speaking, receptive - listening, receptive - seeing, and expressive - writing aphasias;

ideomotor and constructional apraxias; spatial orientation difficulties; and poor right - left body discrimination.[4] They tended to be highly excitable, hyperactive, and highly distractible with poor attention span. Their average age was 12.5 years old. These children were recommended to TMH occupational schools or a therapeutic school milieu in order to give them a sense of worth and to provide greater controls. Most of them had been in programs over their heads, and thus the reason for their frustration.

The second category was children who were educable mentally handicapped (EMH) who had poor frustration tolerance, which led to poor impulse and/or affect control (explosive) usually resulting in hostility or violence. Disturbances in memory, judgment, intellect, orientation and stability of affect were not as severe as in the OBS/TMH group. They did show global difficulty with the agnosias, aphasias, apraxias, spatial orientation and right - left body discrimination, but again not as severely as the first group. These children were also excitable, hyperactive, distractible, etc. Their average age was 12.9 years old. They were referred to EMH occupational schools (if old enough), therapeutic classrooms, or a therapeutic school milieu to be taught better emotional control.

EMH children with neurotic features was the third category. These children had neurological shortcomings similar to the EMH children with explosive behavior; however, these children's behavior was of a different nature. They tended to be sad because they knew they were "slow" and wanted to be "regular." Occasionally, this was transformed into anger; however, these children tended not to demonstrate their anger by hostility or violence as did the second category. Their average age was 13.8 years old. These children were recommended for outpatient psychotherapy, EMH classrooms with sensitive, psychologically-oriented teachers, therapeutic classrooms, and, occasionally, therapeutic school settings.

The fourth category consisted of psychotic children, who were for the most part schizophrenic in one form or another (autistic children who demonstrated mutism, echolalia, no interpersonal relatedness, whirling, and affect storms; childhood schizophrenics who had responsive speech, bizarre habits, islands of intelligence, poor interpersonal relatedness, a thought disorder, mechanical speech, and a peculiar affect; and adolescent schizophrenics who had auditory hallucinations, anhedonia, thought broadcasting, thought blockage, a thought disorder, and a lack of interpersonal relatedness). Their average age was 11.2 years old. There tended to be a greater percentage of males in this group. These children were referred to therapeutic school milieus, therapeutic classrooms, or hospitalized as the case indicated.

Children with borderline syndrome were troubled by chronic impulsive and violent behavior, pan-anxiety, pan-anger, and fair interpersonal relatedness with a strong hostile/dependent component. They were in touch with reality and showed no psychotic symptoms or signs. Their average age was 10.8 years old. These children were referred to therapeutic school settings, or, if their behavior was severe enough, to residential treatment milieus or psychiatric hospitals.[5]

There was only one female with personality disorder of an antisocial type. She related well; denied feelings of anxiety, depression, anger, apathy or fearfulness; knew what she had done, and why she had done it. Neither she nor her parents thought she had a problem, nor wanted any help. She was returned to her local school.

The minimal brain dysfunction/learning disability (MBD/LD) group with explosive or neurotic behavior accounted for more than one quarter of the patients. These children showed focal signs in one or more of the following areas: visual, auditory, or tactile agnosia; or expressive - speaking, receptive - listening, receptive - seeing, or expressive - writing aphasia; or ideomotor or constructional apraxia; or spatial orientation difficulties; or poor auditory or visual memory; or poor auditory or visual closure.[6,7] They did not show global difficulties as did the TMH or EMH children. Furthermore, they were of average intelligence and related quite well interpersonally. These children tended to have low self-esteem, which had a great part of its etiology in their inability to achieve educationally. They often reported they did not like being "bad," but always found themselves in trouble. They knew what they had done was wrong after they had done it, and understood why they had been punished, yet this did not prevent them from repeating the same behavior. Oftentimes, these children were seen as incorrigible. However, it is suspected that they lacked the neurological competence to either control their impulses or to be able to connect their behavior with its possible consequences, except during hindsight. They tended to be always fighting, impulsive, unable to sit and watch their favorite television show, hyperactive, excitable, with poor attention span, accident prone, distractible, prone to temper tantrums, and enuretic. They also tended to have poor speech, poor Bender-Gestalt tests,[8] poor conceptual thinking, soft neurological signs, histories of an abnormal EEG, and a tendency to reverse letters.[6,7] They showed a mixture of neurotic and explosive symptoms and were, therefore, not divided into separate categories on the basis of these features. Their average age was 11.6 years old. While there were more males (55) than females (14), the percentages of males and females in the total male and female populations were about the same (25.9 and 25 percent, respectively). These children were referred for learning disability classes,[9] or, if their behavior was serious enough, to a therapeutic classroom or a therapeutic milieu with learning disabilities facilities.

The children in the explosive behavior group tended to be chair throwers who were quite hostile, impulsive, and violent. They showed no signs of neurologic dysfunction, perceptual - motor dysfunction, anxiety, depression, fearfulness, apathy, or anger. They had good interpersonal relationships, and their behavior, while best described as explosive, was not as severe as exhibited by the children in the borderline group. Their average age was 12.0 years old. These children were referred to therapeutic settings that could provide firm but fair controls and limits. Private schools were very useful in providing this setting. If the child and parents refused a treatment contract, they were left to face the consequences of the child's behavior which would be invoked from the Board of Education if the acting up continued (eg, referral to a correctional facility).

Children with neurotic disorders were found to be of average intelligence and quite interpersonal as was the pre-

Table 2. Diagnostic Categories of Children in the Study With Consideration of Availability for Follow-Up as a Variable

Diagnostic Categories	Follow-up Total No.	%	No Follow-up Female	Male	Total	Total No.
OBS/TMH with explosive behavior	11	50*	2	9	11	22
EMH with explosive behavior	12	54.5*	1	9	10	22
EMH with neurotic symptoms	5	45.5*	2	4	6	11
Psychotic	16	61.5*	2	8	10	26
Borderline syndrome	7	38.9*	2	9	11	18
Socially maladjusted behavior	—	—	1	—	1	1
MBD/LD with explosive and/or neurotic symptoms	35	50.7*	6	28	34	69
Explosive behavior	16	59.3*	1	10	11	27
Neurotic symptoms	47	61.0*	4	26	30	77
Psychophysiologic disorders	1	100*	—	—	—	1
Total	150	54.7	21**	103†	124	274

*The percent of this diagnostic category which was available for follow-up
**This number was 38.9% of the total female population of 54
†This number was 46.8% of the total male population of 220

vious group. There was an absence of perceptual-motor problems or MBD/LD. Some were quite candid with their reports and others tended to show defensive structures in an attempt to deal with their problems. Their difficulties mainly involved feelings of anxiety, unhappiness, and anger due to conflicts they were having between various factors in their life. Their average age was 11.1 years old, and they accounted for more than one quarter of the diagnoses. Outpatient therapy, therapeutic school settings, therapeutic classrooms, and family counseling were suggested for these children.

There was only one psychophysiologic reaction patient who was a male with gastrointestinal symptoms with anxiety.

A few of these children were seen to determine if the treatment they had already received made it possible for them to return to a public school, as they had been tuitioned out to private treatment milieus.

Differential diagnosis was clearly very important to determine what disorder underlaid the overt behaviors which were often similar between groups. Children with MBD/LD and explosive and/or neurotic behavior needed a quite different educational and treatment approach than the children who had similar behavior, but not the MBD/LD. Autistic children had to be differentiated from children who were deaf, aphasic, mentally handicapped, brain damaged, or severely neurotic.[7] Fortunately, a diagnostic team screening usually provided enough information to make a good differential.

Because children are not as set in their ways as adults are, their diagnoses were not put down in their evaluations, since it was felt that such a "label" would tend to be seen as permanent rather than a description of a possibly transient state (especially, if treated before the behavior could become a fixed trait). The only exceptions were in cases where a diagnosis was necessary for placement. Otherwise, the disorder was described rather than diagnosed (this was also due to the nonmedical nature of the Board of Education).

Results of Follow-up

Telephone follow-up was done on the 274 patients with the average time between initial contact and telephone follow-up being 13 months. Of the total 274 children, 150 (54.7 percent) were contacted and their average time between initial contact and telephone contact was 12 months. The percentage of patients able to be contacted three to seven months after the initial contact was 82.7 percent, whereas the percentage of patients able to be contacted 8-13 months after initial contact dropped to 53.9 percent. The percentage of patients able to be contacted 14-19 months and 20-25 months after initial contact was 49.2 and 50 percent, respectively. Patients who were not contacted either did not have a phone or had their number changed. The percentages of the total male and female population which were able to be contacted were 53.2 and 61.1 percent, respectively. There was a lower follow-up phone contact rate for patients classed as borderline (38.9 percent), while those children classed as psychotic, explosive, and neurotic had the highest percentage of successful follow-up (approximately 60 percent) (Table 2). The 150 follow-up patients had percentages of diagnostic categories similar to the percentages of the diagnostic categories in the total 274 patients. In addition, the percentages of males and females in each diagnostic category in the follow-up group were similar to the percentages of the males and females in each diagnostic category of the total 274 children. The patients in the TMH and both EMH groups were older than the patients who were not able to be contacted by an average of one year. The psychotic patients available for follow-up were on the average two years younger than those not available for follow-up. The children in the remaining categories available for follow-up were on the average less than a year older than those not available for follow-up.

Children who were contacted on follow-up were divided into two basic groups: (1) better—those who had shown improvement in their symptoms, had been placed in appropriate facilities, demonstrated improvement, and had shown improvement in their academic performance; and (2) same—those who had not been properly placed and had shown no symptom improvement or those who had shown no improvement although in appropriate placements. The numbers and percentages of these two groups are presented in Table 3 with reference to diagnostic categories and sex. The out-

Table 3. Diagnostic Categories of Children Available for Follow-Up With Regards to Outcome

Diagnostic Categories	Better Female	Better Male	Better Total	Same Female	Same Male	Same Total	Total
OBS/TMH with explosive behavior	2 66.6%*	6 75%**	8 72.7%†	1 33.3%*	2 25%**	3 27.3%†	11 7.3%††
EMH with explosive behavior	2 50%*	5 62.5%**	7 58.3%†	2 50%*	3 37.5%**	5 41.7%†	12 8%††
EMH with neurotic behavior	— —	4 80%**	4 80%†	— —	1 20%**	1 20%†	5 3.3%††
Psychotic	1 100%*	14 93.3%**	15 93.8%†	— —	1 6.7%**	1 6.2%†	16 10.7%††
Borderline syndrome	1 100%*	4 66.6%**	5 71.4%†	— —	2 33.3%**	2 28.6%†	7 4.7%††
MBD/LD with explosive and/or neurotic features	4 50%*	19 70.4%**	23 65.7%†	4 50%*	8 29.6%**	12 34.3%†	35 23.3%††
Explosive behavior	1 33.3%*	10 76.9%**	11 68.8%†	2 66.6%*	3 23.1%**	5 31.2%†	16 10.7%††
Neurotic symptoms	9 69.2%*	23 67.6%**	32 68.1%†	4 30.7%*	11 32.4%**	15 31.9%†	47 31.3%††
Psychophysiologic disorders	— —	— —	— —	— —	1 100%**	1 100%†	1 0.7%††
Total	20 60.6%*	85 72.6%**	105 70%†	13 39.4%*	32 27.4%**	45 30%†	150

*Percentage of females in this category
**Percentage of males in this category
†Percentage of total number in this category
††Percentage of total population in this category

come of the children followed up on was not related to the time between initial contact and follow-up contact, and this was true whether the outcome groups were considered in totality or broken down into male and female subgroups. Follow-up revealed that in most cases males followed up on had a better outcome then females in most of the diagnostic categories and in the total follow-up populations as well.

Discussion

The children who were diagnosed as OBS/TMH and EMH with additional emotional problems were on the average older than children in the other categories. This is likely due to the fact that children with compromised intellectual functioning have a difficult time dealing with the stresses of adolescence and thus tend to develop emotional problems during this period of life, which is reflected in an average age of referral of 13 years of age.

There tends to be a greater percentage of males who develop schizophrenia prior to adulthood than females.

Children with a diagnosis of OBS/TMH, EMH, or MBD/LD can be identified by a neurologic examination with careful attention given to cerebral functions.

While the number of males with MBD/LD and emotional problems is greater than females, when a total population of children with emotional problems is considered the percentages of males and females are equal.

Children with emotional problems who are referred for psychiatric evaluation must be evaluated from a standpoint of determining whether there is some neurologic dysfunctioning present. This is especially true if the majority of the population is black, as MBD/LD is associated with prematurity and black children have a higher percentage of prematurity than white children.

Children with neurotic problems account for more than one fourth of all children referred for a psychiatric evaluation for difficulty in school secondary to emotional problems. Children with MBD/LD account for more than one fourth of all children referred for a psychiatric evaluation for difficulty in school secondary to emotional problems. Children with psychophysiologic disorders and personality disorders are rare.

Female children were a bit more likely to be able to be contacted for follow-up than males.

Children categorized as borderline syndrome have the least likelihood of being available for follow-up, and children categorized as psychotic, explosive, and neurotic have the greatest likelihood.

Males tend to have a better treatment outcome than females.

Children who have emotional problems in school do not tend to "outgrow" their problems, those showing improvement had psychiatric treatment. As a result, the Board of Education plays a significant role in all areas of prevention of later psychiatric or criminal disorders. The earlier the age of the child when intervention takes place, the better.

The majority of children (70 percent) of minority status and low socioeconomic status who have behavioral or emotional problems in school can be helped if they are appropriately diagnosed rather than assigning them to the category of disciplinary problems. Over 95 percent of the children seen were poor and black and none of them were "bad kids."

It is clear that 27 percent of black families will be on incomes below the poverty level,[10] that "a black baby is twice as likely to die in the first year of life as a white baby,"[11] and that black children in families below the poverty level are more likely to be premature and nutritionally deficient.[12] As a result of deficient incomes, black children are more likely to get medical services through public agencies that are supported by tax dollars. Thus, it is imperative that black people become politically sophisticated in order to direct those dollars to the patients who clearly need the care.

Appropriate identification of a problem is an exercise in futility unless appropriate linkage to a proper treatment facility is obtained. There is a shortage of proper treatment facilities in minority, low socioeconomic areas and there need to be means for developing such facilities in impoverished areas.

Finally, it will be interesting to try to locate these children to determine their outcome in five and ten years.

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Characteristics of Births, United States, 1973-1975

In areas reporting education, the majority of births occurred to mothers who had at least a high school education. These mothers were less likely to have babies of low birth weight or illegitimate babies. They generally received prenatal care earlier in pregnancy than the less educated group.

The median birth weight for all infants born in 1975 was 3,320 gm; seven percent of all newborns were of low birth weight (2,500 gm or less). The median birth weight of black infants was somewhat lower than that of white infants.

Of all live births in reporting areas in 1973, 9.2 percent were premature—16.7 percent of black births and 7.7 of white births fell into the premature category. In 1975, 8.9 percent of all live births were premature and most of the decline was in the prematurity rate among black births.

In 1973, nearly 71 percent of all births were to mothers who started prenatal care in the first trimester of pregnancy; only 1.5 percent of all births were to mothers who received no care. In 1973, 10.6 visits for prenatal care was the median number of visits per birth. The median number for white mothers was 10.9 and for black mothers it was 8.6. By 1975, the median number of prenatal visits had increased to 10.8 and there was a larger increase for black than for white births.

Of all infants born in the United States in 1975, 99 percent were classified as having been delivered by physicians in hospitals—98.9 percent of white births compared with 98.0 percent of black births.

In 1973, the multiple birth ratio was 18.4 live births in multiple deliveries per 1,000 total live births; in 1975 this ratio was slightly higher (19.2).

The mean interval since the last live birth (for second and higher order births) was 43.3 months in 1973 and 44.6 months in 1975. The mean interval since the termination of the last pregnancy for all births resulting from second and higher order pregnancies had increased by one month to 41.4 months in 1975. This interval was approximately 1½ years longer when the last pregnancy ended in a live birth than when it ended in a fetal death.

The estimated illegitimacy rate was 24.8 illegitimate births per 1,000 unmarried women aged 15-44 years in 1975, a decline from the rate of 26.4 in 1970. The illegitimacy ratio, however, had increased from 106.9 to 142.5 illegitimate births per 1,000 total live births between 1970 and 1975.

Vital and Health Statistics
US Department of Health, Education and Welfare